CLAIMS A cross polarized wave interference eliminating system comprising means, on a receiving 2 side, which includes interference compensators which 3 4 generate interference compensation signals for respectively compensating for two orthogonal cross 5 polarized components, generates transmission power 6 control information for each polarized wave to 7 individually improve an interference compensation 8 characteristic for each polarized wave in accordance 9 with an interference state, and notifies a transmitting 10 side of the information, characterized by comprising 11 interference compensation amount adjusting 12 means for, on the receiving side, adjusting an 13 interference compensation amount of a self-polarized 14 wave on the basis of the transmission power control 15 information for each of the polarized waves. 16 2. A cross polarized wave interference eliminating system according to claim 1, characterized 2 in that said interference compensation amount adjusting 3 means comprises a coefficient controller which generates 4 and outputs, on the basis of the transmission power 5 6 control information for each of the polarized waves, a 7 weighting coefficient corresponding to a cross polarized wave interference amount which can occur in accordance 8 with a reception level difference between the two 9 10 polarized waves, and an interference compensator which

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filters a reception output on a different polarization 11 side with a specific frequency component, and outputs a 12 compensation signal having a level corresponding to a 13 weighting coefficient from said coefficient controller 14 and a phase opposite to an interference component. 15 3. A cross polarized wave interference eliminating system according to claim 2, characterized 2 in that said interference compensator includes a 3 transversal filter which filters a reception output on 4 the different polarization side on the basis of a tap 5 coefficient corresponding to a cross polarized wave 6 interference amount, and a weighting circuit which 7 adjusts a level of a compensation signal output from 8 said transversal filter by increasing/decreasing a value 9 of the tap coefficient in accordance with the weighting 10 11 coefficient. A cross polarized wave interference 2 eliminating system according to claim 2, characterized in that said interference compensator includes a filter 3 which filters a reception output on the different 4 5 polarization side with a specific frequency component, 6 and a weighting circuit which adjusts a level of a compensation signal output from said filter by 7 increasing/decreasing an output from said filter on the 8 9 basis of the weighting coefficient. 5. A cross polarized wave interference eliminating method used in a cross polarized wave 2 - 22 -

- 3 interference eliminating system comprising means, on a
- 4 receiving side, which includes interference compensators
- 5 which generate interference compensation signals for
- 6 respectively compensating for two orthogonal cross
- 7 polarized components, generates transmission power
- 8 control information for each polarized wave to
- 9 individually improve an interference compensation
- 10 characteristic for each polarized wave in accordance
- 11 with an interference state, and notifies a transmitting
- 12 side of the information, characterized by comprising
- the step of, on the reception side, adjusting
- 14 an interference compensation amount of a self-polarized
- 15 wave on the basis of the transmission power control
- 16 information for each of the polarized waves.